



Environmental & Engineering Services Nationwide



DOCUMENTATION OF DUE CARE COMPLIANCE

32451 North Avis Drive and 32450-32470 Milton Avenue |
Madison Heights, Michigan
PM Project Number 02-7403-1

Prepared for:

SprayTek, Inc.
2535 Wolcott
Ferndale, Michigan 48220

Prepared by:

PM Environmental, Inc.
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Berkley, Michigan 48072

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July 1, 2014

Mr. Marvin Hairston
SprayTek, Inc.
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Ferndale, Michigan 48220

**RE: Documentation of Due Care Compliance for the Industrial Property
Located at 32451 North Avis Drive and 32450-32470 Milton Avenue
Madison Heights, Michigan (Parcel ID: 44-25-01-251-014)
PM Environmental, Inc. Project No. 02-7403-1**

Mr. Hairston:

Enclosed is one copy of the above-referenced document prepared in accordance with Rule 1003(5) of Section 20107(a) of P.A. 451, as amended, and the Part 10 Rules by PM Environmental, Inc. (PM).

If you have any questions regarding the information in this report, please contact us at 248.336.9988.

PM ENVIRONMENTAL, INC.

Jamie Antoniewicz, P.E.
Project Engineer

Jennifer L. Ritchie, C.P.G.
Regional Site Investigation Manager

Enclosure

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1.0 INTRODUCTION

This Documentation of Due Care Compliance (DDCC) report was prepared on behalf of Spraytek, Inc. Madison Heights for the industrial property (Parcel ID: 44-25-01-251-014) located at 32451 North Avis Drive, Madison Heights, Oakland County, Michigan 48071, in accordance with Rule 1003(5) of Section 20107a of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994 (Part 201), as amended. The Part 10 Rules require that documentation be maintained demonstrating that the owner or operator of contaminated property is in compliance with Section 7a of Part 201. Documentation of an owner or operators compliance with their Section 7a obligations must be made available to the Michigan Department of Environmental Quality (MDEQ) upon request.

Section 7a of Part 201 imposes "due care" obligations on owners and operators of contaminated properties. Those obligations include:

- (a) Undertake measures to prevent exacerbation.
- (b) Exercise due care by undertaking response activity necessary to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects the public health and safety.
- (c) Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- (d) Provide reasonable cooperation, assistance, and access to the persons that are authorized to conduct response activities at the facility, including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response activity at the facility.
- (e) Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- (f) Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

This Documentation of Due Care Compliance is representative of the current and intended use as outlined in Section 1.1 and 1.2. If changes to the property use, zoning, operations, and/or layout occur, re-evaluation of potential exposure pathways and associated amendments to this report may be required.

1.1 Site Description and Background

The subject property consists of one 3.21 acre parcel located west of North Avis Drive in Madison Heights, Michigan. The property is occupied by a 66,691 square foot building (Figure 2).

Standard and other historical sources documented the eastern portion of the current building was constructed in approximately 1966/1967, with a small addition constructed in 1973. Prior to that, the property consisted of agricultural land dating back to at least 1937. The eastern portion of the building was occupied by various industrial and/or manufacturing tenants from at least

1969 until 1992, was occupied by a binding company and/or a bottle warehouse/distributor from at least 1996 until early 2014, and is currently vacant. An addition was constructed as warehouse space to the western portion of the building in 1996/1997. This portion of the building has been occupied by various warehouse tenants since construction.

1.2 Intended Use of the Subject Property

Spraytek, Inc. intends to utilize the property for metal finishing operations. The subject property is currently zoned M-I: Light Industrial. The intended use and zoning is consistent with a Nonresidential property use in accordance with Part 201.

The subject property is currently connected to municipal water and sewer, as well as natural gas, electrical, and telecommunications utilities. No water supply wells exist in association with the subject property.

1.3 Summary of Site Investigations

Phase I Environmental Site Assessment (ESA) (2014): PM completed a Phase I ESA, dated June 16, 2014, which identified the following recognized environmental conditions (RECs):

- The eastern/original portion of the subject building was occupied by various industrial and/or manufacturing operations from at least 1969 until 1992, and likely back to construction in 1966/1967. Additionally, a site plan dated 1991 documents various operations in the eastern portion of the building, which include metal finishing, painting, printing and plating. Historical interior waste streams associated with the long-term former industrial and/or manufacturing operations would have consisted of general hazardous substances and/or petroleum products, likely including solvents and/or plating waste. A majority of this time period preceded major environmental regulations and current waste management and disposal procedures. Based upon shallow groundwater and PM's experience, the historical waste management practices associated with the former operations are unknown and may be a source of subsurface contamination.
- PM observed three floor drains and an apparent sealed floor drain in the eastern/original portion of the building. The installation date and integrity of the floor drains is unknown. Historical interior waste streams associated with the former industrial operations conducted in this portion of the building would have consisted of general hazardous substances and/or petroleum products. The potential exists for failure of the drainage system (i.e. cracks, leaks) to have occurred over time. The historical waste management practices associated with the floor drains are unknown and could be a source of subsurface contamination.
- PM observed a patched area of concrete (approximately five feet by ten feet) in the northwestern portion of the eastern/original portion of the subject building. PM was unable to document what the patched area was formerly associated with. Based upon the long-term former industrial use of this portion of the building, the patched area may have been associated with a press pit or some other type of subgrade pit. Historical interior waste streams associated with the former industrial operations conducted in this portion of the building would have consisted of general hazardous substances and/or petroleum products. Based upon the unknown former use of the patched area and the long-term former industrial operations with unknown historical waste management practices, the potential exists for subsurface contamination to be present in this area.

Baseline Environmental Assessment (BEA) (2014): On June 5, 2014, PM completed a scope of work consisting of the advancement of ten soil borings (SB-1 through SB-10; Figure 3), installation of four temporary monitoring wells (TMW-2, TMW-5, TMW-7, and TMW-9; Figure 4) and the collection of 12 soil and four groundwater samples analyzed for volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), polychlorinated biphenyls (PCBs), and metals (cadmium, chromium, lead), or some combination thereof, to assess the RECs identified in PM's June 2014 Phase I ESA.

1.4 Geology and Hydrogeology

Based upon onsite observations of soil samples and cuttings collected from the soil borings that were advanced at the subject site by PM, the general soil stratigraphy consists of sand or sandy clay to a depth of 4.0 to 5.0 feet bgs, underlain by medium-stiff to stiff clay to a depth of 20.0 feet bgs, the maximum depth explored.

Limited, discontinuous, and perched groundwater was encountered in four (SB-2, SB-5, SB-7, and SB-9) of the ten soil borings between 2.3 and 5.9 feet bgs.

1.5 Location of Contaminated Media on the Subject Property

The analytical results for the samples collected during site investigation activities conducted by PM were compared with the Michigan Department of Environmental Quality (MDEQ) Generic Cleanup Criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated December 30, 2013 entitled "Cleanup Criteria Requirements for Response Activity", in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria. The analytical results are summarized in Tables 1 and 2 and in Figure 3 and 4.

Summary of Analytical Results

Location and Total Depth (feet bgs)	Soil Sample Depth (feet bgs)	TMW Screen and [DTW] (feet bgs)	Analysis	Objectives	Part 201 GCC Exceedances	
					Soil	GW
SB-1 (15.0)	3.5-4.5	NA	VOCs, PNAs, PCBs, Metals	Assess former operations and drain	NONE	NA
SB/TMW-2 (15.0)	8.0-9.0	3.0-8.0 [3.30]	VOCs, PNAs, PCBs, Metals	Assess former operations and sealed drain	NONE	NONE
SB-3 (10.0)	4.0-5.0	NA	VOCs, PNAs, PCBs, Metals	Assess former operations	NONE	NA
SB-4 (15.0)	3.0-4.0	NA	VOCs, PNAs, PCBs, Metals	Assess former operations and drain	GSIP: naphthalene	NA
	9.0-10.0				NONE	

**Documentation of Due Care Compliance Report for the Industrial Property
Located at 32451 North Avis Drive, Madison Heights, Michigan
PM Project No. 02-7403-1; July 1, 2014**

Location and Total Depth (feet bgs)	Soil Sample Depth (feet bgs)	TMW Screen and [DTW] (feet bgs)	Analysis	Objectives	Part 201 GCC Exceedances	
					Soil	GW
SB/TMW-5 (15.0)	5.0-6.0	2.5-7.5 [2.86]	VOCs, PNA's, PCBs, Metals	Assess former operations and drain	NONE	NONE
SB-6 (20.0)	4.0-5.0	NA	VOCs, PNA's, PCBs, Metals	Assess former operations	DWP: cis-1,2-DCE	NA
SB/TMW-7 (15.0)	5.0-6.0	1.3-6.3 [2.30]	VOCs, PNA's, PCBs, Metals	Assess former operations	NONE	NONE
SB-8 (15.0)	4.0-5.0	NA	VOCs, PNA's, PCBs, Metals	Assess former operations	NONE	NA
SB/TMW-9 (15.0)	4.0-5.0	2.65-7.65 [5.91]	VOCs, PNA's, PCBs, Metals	Assess former operations and drain	NONE	NONE
SB-10 (20.0)	3.0-4.0	NA	VOCs, PNA's, PCBs, Metals	Assess former operations, drain, and patched concrete	NONE	NA

DW/P: drinking water/ protection

GSI/P: groundwater surface water interface/ protection

DC: direct contact

R: Residential

DCE: dichloroethylene

Soil analytical results identified concentrations of VOCs above laboratory method detection limits (MDLs) in SB-4 (3.0-4.0) and SB- 6 (4.0-5.0) which included the concentrations of naphthalene and cis-1,2-DCE outlined above that exceed Part 201 DWP or GSIP cleanup criteria. No other concentrations of VOCs were identified in the remaining soil samples above laboratory MDLs.

Soil analytical results identified concentrations of naphthalene and 2-methylnaphthalene in SB-4 (3.0-4.0) that are below the most restrictive Part 201 Residential cleanup criteria. No other PNA concentrations were identified in the remaining soil samples above laboratory MDLs.

Soil analytical results did not identify concentrations of PCBs above laboratory MDLs in any of the soil samples collected.

Soil analytical results identified concentrations of cadmium, chromium, and/or lead in each of the samples collected that are below the Statewide Default Background Levels (SDBLs).

Groundwater analytical results did not identify any concentrations of VOCs, PNA's, chromium, or lead above laboratory MDLs. The concentration of cadmium identified in TMW-2 was below the most restrictive Part 201 Residential cleanup criteria.

2.0 EXPOSURE PATHWAY EVALUATION

The following exposure pathways were evaluated, including: groundwater ingestion, soil leaching to groundwater, groundwater surface water interface, direct contact, and ambient and indoor air inhalation from contaminated soil and groundwater. Exposure pathways are eliminated when they are determined not to be relevant (e.g., groundwater ingestion, soil leaching to groundwater, and groundwater surface water interface) or it is demonstrated that unacceptable exposures do not exist and that response activities are not required to prevent or mitigate unacceptable exposures.

The subject property is currently zoned M-I: Light Industrial, which is consistent with a Nonresidential property use in accordance with MDEQ Part 201. Based upon the current zoning and planned Nonresidential use of the subject property, the Part 201 Nonresidential cleanup criteria are applicable.

The following exposure pathway analysis is based on the currently known information collected during the current site investigation. If evidence is discovered of additional impact, the exposure pathways will need to be re-evaluated.

HUMAN EXPOSURE PATHWAYS						
Pathway	Human Exposure Pathway Relevant?		If Pathway Is Relevant, Are Applicable Criteria Exceeded? (Applicable Criteria)			
	Yes/No	Justification	Res		Nonres	
			Soil	GW	Soil	GW
Groundwater Ingestion	No	<ul style="list-style-type: none"> • Municipal water connection • No water wells 	NA	NA	NA	NA
Indoor Air Inhalation	Yes	<ul style="list-style-type: none"> • Building structure is present 	NA	NA	No	NA
Ambient Air Inhalation	Yes	<ul style="list-style-type: none"> • Potential exposure if surface cover removed 	NA	NA	No	NA
Direct Contact	Yes	<ul style="list-style-type: none"> • Potential exposure to subsurface soils 	NA	NA	No	NA

NA – Not Applicable

Res – Residential

Nonres – Nonresidential

Bold – Response activities are required based upon a relevant human exposure pathway and exceedance of an applicable criterion (Section 3.0).

OTHER PATHWAYS AND DUE CARE CONSIDERATIONS	
Migration Via Utility Corridors or other means	Utility corridors on or adjacent to the subject property may represent pathways for contaminant migration. Based on the lack of continuous groundwater, utility corridors are unlikely to act as preferential pathways for migration. However, utility corridors may additionally act as a conduit for vapor exposure or direct contact exposure to parties completing subsurface work. However, based on the concentrations of contamination identified, if encountered, would not result in an unacceptable exposure.
Fire and Explosion Hazards	No compounds were identified above the flammability and explosively screening level and non-aqueous phase liquid (NAPL) was not identified.

3.0 PLAN FOR RESPONSE ACTIVITY

As outlined in the exposure pathway evaluation above, compounds were not identified above applicable cleanup criteria for relevant due care exposure pathways based on the available information and anticipated use. Therefore, no response activities are required to prevent or mitigate unacceptable exposure and allow for the intended use of the subject property in a manner that protects the public's health and safety. Refer to Section 4.0 for due care compliance obligations.

If unknown soil and/or groundwater impact is encountered or changes to the property use, zoning, operations, and/or layout occur, re-evaluation of potential exposure pathways and associated amendments to this report will be required.

4.0 EVALUATION AND DEMONSTRATION OF COMPLIANCE WITH SECTION 7A OBLIGATIONS

The following sections provide documentation that the proposed usage of the site will be in compliance with Section 7a obligations.

4.1 Exacerbation (Section 7a(1)(a))

No activities are anticipated on the property at this time that would result in exacerbation. In the event soil or groundwater intended to be moved on the property or off of the property, proper characterization will be required to allow for property management or disposal.

4.2 Due Care (Section 7a(1)(b))

Based on the current and anticipated use and analytical results, due care response activities will not be required to prevent unacceptable exposure for the intended use of the property.

4.3 Reasonable Precautions (Section 7a(1)(c))

Reasonable precautions will be taken against the reasonable foreseeable acts or omissions of a third party and the consequences that are foreseeable could result from those acts or omissions.

Third parties who intend to perform subsurface work on the property will be notified prior to beginning work to allow proper management of impacted soil (if present) to prevent exacerbation and to comply with Section 7a.

4.4 Reasonable Cooperation, Assistance, and Access (Section 7a(1)(d))

Reasonable cooperation, assistance, and access will be provided to the persons (i.e. including liable parties) that are authorized to conduct response activities at the facility, including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response activity at the facility.

4.5 Use Restriction Compliance (Section 7a(1)(e))

No land use or resource use restrictions are known or required in connection with the planned response activities at the facility.

In the event that any land use or resource use restriction is placed on the facility, the owner will comply with them.

4.6 Effectiveness or Integrity of Use Restrictions (Section 7a(1)(f))

As indicated in Section 4.5, no land use or resource use restrictions are known or required in connection with the planned response activities at the facility.

If any land use or resource use restriction is placed on the property, the effectiveness and integrity of the land use or resource restrictions employed at the facility will not be impeded.

5.0 DUE CARE DOCUMENTATION

Rule 1003(5) of Section 20107a of P.A. 451, as amended requires that documentation, including this Documentation of Due Care Compliance, be maintained for the subject property, demonstrating that the subject property is in compliance with Section 7a of Part 201. This Documentation of Due Care Compliance and any requested compliance documentation must be made available to the MDEQ upon request and may include but is not limited to:

- Notices to third party contractors performing subsurface work, as needed;

If you have questions regarding this report, please contact PM at 248.336.9988.

REPORT PREPARED BY:



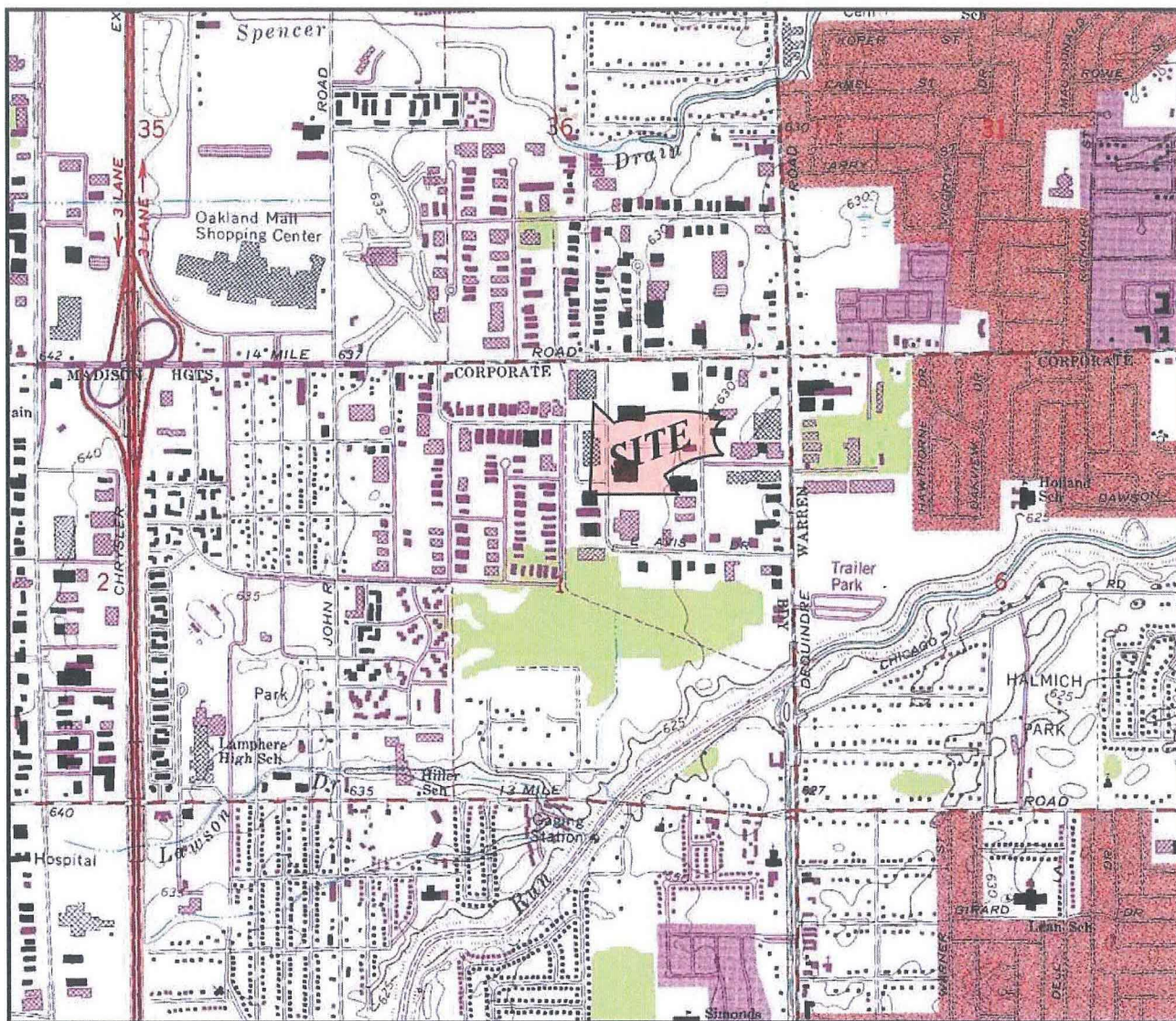
Jamie Antoniewicz, P.E.
Project Engineer

REPORT REVIEWED BY:



Jennifer L. Ritchie, C.P.G.
Regional Site Investigation Manager

Figures



OAKLAND COUNTY



MICHIGAN QUADRANGLE LOCATION

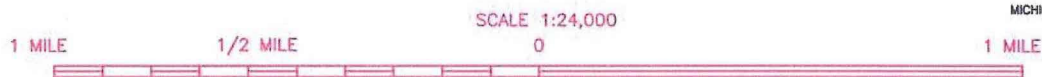


FIGURE 1

PROPERTY VICINITY MAP
USGS, 7.5 MINUTE SERIES

WARREN, MI QUADRANGLE, 1968. PHOTO REVISED 1973 AND 1980.



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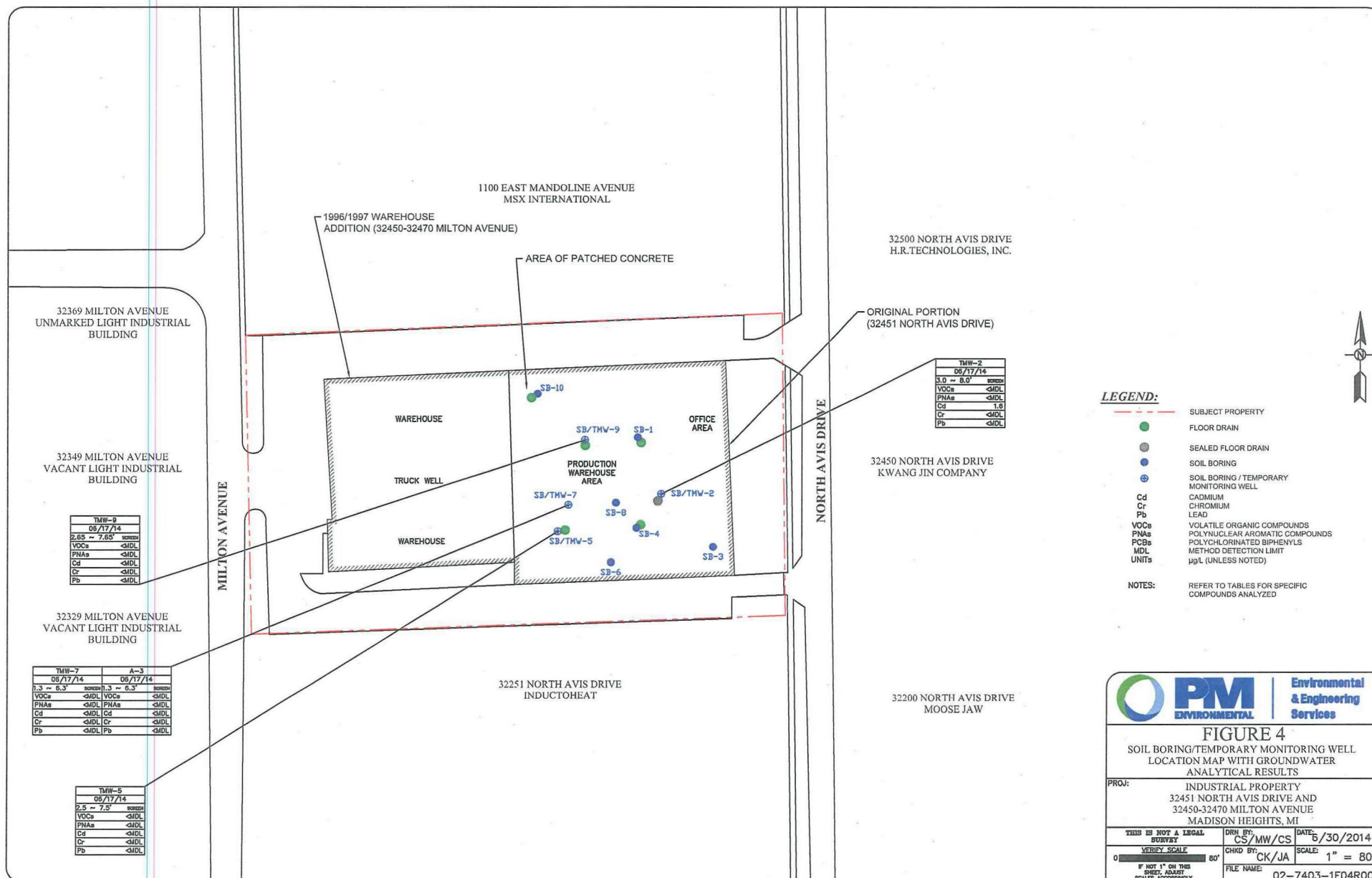
PROJ:
INDUSTRIAL PROPERTY
32451 NORTH AVIS DRIVE AND
32450-32470 MILTON AVENUE
MADISON HEIGHTS, MI

THIS IS NOT A LEGAL
SURVEY

VERIFY SCALE
0 2,000'
IF NOT 1" ON THIS
SHEET, ADJUST
SCALES ACCORDINGLY.

DRN BY: CS DATE: 6/30/2014
CHKD BY: CK/JA SCALE: 1" = 2,000'
FILE NAME: 02-7403-1F01R00





Tables

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOCs, PNAs, PCBs, AND METALS
32451 NORTH AVIS DRIVE, MADISON HEIGHTS, MICHIGAN
PM PROJECT #02-7403-1


VOLATILE ORGANIC COMPOUNDS (VOCs), POLYNUCLEAR AROMATIC COMPOUNDS (PNAs), POLYCHLORINATED BIPHENYLS (PCBs), AND METALS (µg/Kg)			n-Butylbenzene	sec-Butylbenzene	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethylene	2-Methylnaphthalene	Naphthalene	n-Propylbenzene	Other VOCs	Naphthalene	2-Methylnaphthalene	Other PNAs	PCBs	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)			104518	135988	156592	156605	91576	91203	103651	Various	91203	91576	Various	1336363	7440439	18065831	7439921
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs								PNAs			PCBs	METALS		
SB-1	06/17/2014	3.5-4.5	<70	<70	<70	<70	<490	<490	<100	ND	<300	<300	ND	<330	<200	1,960	3,200
SB-2	06/17/2014	8.0-9.0	<80	<80	<80	<80	<560	<560	<200	ND	<300	<300	ND	<330	<200	2,460	7,120
SB-3	06/17/2014	4.0-5.0	<70	<70	<70	<70	<480	<480	<100	ND	<300	<300	ND	<330	<200	2,370	6,860
SB-4	06/17/2014	3.0-4.0	1,420	560	<80	<80	2,140	1,600	200	ND	300	400	ND	<330	<200	1,200	5,120
A-4			100	<70	<70	<70	<470	<470	<100	ND	<300	300	ND	<330	<200	2,750	5,160
SB-4	06/17/2014	9.0-10.0	<70	<70	<70	<70	<480	<480	<100	ND	<300	<300	ND	<330	<200	4,120	5,910
SB-5	06/17/2014	5.0-6.0	<90	<90	<90	<90	<620	<620	<200	ND	<300	<300	ND	<330	<200	2,670	3,830
SB-6	06/17/2014	4.0-5.0	<80	<80	2,140	210	<540	<540	<200	ND	<300	<300	ND	<330	250	4,930	6,640
SB-7	06/17/2014	5.0-6.0	<90	<90	<90	<90	<580	<580	<200	ND	<300	<300	ND	<330	<200	2,570	4,240
SB-8	06/17/2014	4.0-5.0	<70	<70	<70	<70	<450	<450	<100	ND	<300	<300	ND	<330	<200	2,490	3,800
SB-9	06/17/2014	4.0-5.0	<90	<90	<90	<90	<570	<570	<200	ND	<300	<300	ND	<330	<200	3,080	5,110
SB-10	06/17/2014	3.0-4.0	<80	<80	<80	<80	<530	<530	<200	ND	<300	<300	ND	<330	<200	1,530	4,160
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013																	
Residential (µg/Kg)																	
Statewide Default Background Levels	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,200	18,000	21,000
Drinking Water Protection (Res DWP)	1,600	1,600	1,400	2,000	57,000	35,000	1,600	Various	35,000	57,000	Various	NLL	6,000	30,000	7,00E+05		
Groundwater Surface Water Interface Protection (GSIP)	ID	ID	12,000	30,000 (X)	4,200	730	ID	Various	730	4,200	Various	NLL	5,600 (G,X)	4.8E+09 (G,X)	5.2E+06 (G,X)		
Soil Volatilization to Indoor Air Inhalation (Res SVII)	ID	ID	22,000	23,000	2.70E+06	2.50E+05	ID	Various	2.50E+05	2.70E+06	Various	3.0E+06	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	ID	ID	1.80E+05	2.80E+05	1.50E+06	3.00E+05	ID	Various	3.0E+05	1.50E+06	Various	2.40E+05	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	ID	ID	4.20E+05	8.30E+05	1.50E+06	3.00E+05	ID	Various	3.0E+05	1.50E+06	Various	7.9E+06	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	ID	ID	9.90E+05	2.00E+06	1.50E+06	3.00E+05	ID	Various	3.0E+05	1.50E+06	Various	7.9E+06	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Res PSI)	2.00E+09	4.00E+08	2.30E+09	4.70E+09	6.70E+08	2.00E+08	1.30E+09	Various	2.0E+08	6.70E+08	Various	5.2E+06	1.70E+06	2.60E+05			
Direct Contact (Res DC)	2.50E+06	2.50E+06	2.5E+06 (C)	3.8E+06 (C)	8.10E+06	1.60E+07	2.50E+06	Various	1.6E+07	8.10E+06	Various	(T)	5.50E+05	2.50E+06	4.00E+05		
Nonresidential (µg/Kg)																	
Drinking Water Protection (Nonres DWP)	4,600	4,600	1,400	2,000	1.70E+05	1.00E+05	4,600	Various	1.00E+05	1.70E+05	Various	NLL	6,000	30,000	7.00E+05		
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	ID	ID	41,000	43,000	4.90E+06	4.70E+05	ID	Various	4.70E+05	4.90E+06	Various	1.6E+07	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	ID	ID	2.10E+05	3.30E+05	1.80E+06	3.50E+05	ID	Various	3.50E+05	1.80E+06	Various	8.10E+05	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	ID	ID	4.30E+05	8.40E+05	1.80E+06	3.50E+05	ID	Various	3.50E+05	1.80E+06	Various	2.8E+07	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	ID	ID	1.00E+06	2.00E+06	1.80E+06	3.50E+05	ID	Various	3.50E+05	1.80E+06	Various	2.8E+07	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Nonres PSI)	ID	ID	1.00E+09	2.10E+09	2.90E+08	8.80E+07	5.90E+08	Various	8.8E+07	2.90E+08	Various	6.5E+06	2.20E+06	2.40E+05			
Direct Contact (Nonres DC)	8.00E+06	8.00E+06	8.0E+06 (C)	1.2E+07 (C)	2.60E+07	5.20E+07	8.00E+06	Various	5.2E+07	2.60E+07	Various	(T)	2.10E+06	9.20E+06	9.0E+5 (DD)		
Screening Levels (µg/Kg)																	
Soil Saturation Concentration Screening Levels (Csat)	1.00E+07	1.00E+07	6.40E+05	1.40E+06	NA	NA	1.00E+07	Various	NA	NA	Various	NA	NA	NA	NA	NA	NA

☐ Applicable Criterion/RBSL Exceeded
BOLD Value Exceeds Applicable Criterion/RBSL
 bgs Below Ground Surface (feet)
 ND Non-detected at levels above laboratory method detection limit (MDL)
 NA Not Applicable
 NL Not Listed
 NLL Not Likely to Leach
 NLV Not Likely to Volatilize
 ID Insufficient Data

(G) Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on
 269 mg/L CaCO₃ Hardness: Station ID 500011, Red Run Drain, near Warren, MI.

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VOCs, PNAs, AND METALS
32451 NORTH AVIS DRIVE, MADISON HEIGHTS, MICHIGAN
PM PROJECT #02-7403-1

VOLATILE ORGANIC COMPOUNDS (VOCs), POLYNUCLEAR AROMATIC COMPOUNDS (PNAs), AND METALS (µg/L)				VOCs	PNAs	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)				Various	Various	7440439	16065831	7439921
Sample ID	Sample Date	Screen Depth (feet bgs)	Depth to Groundwater (feet bgs)	VOCs	PNAs	METALS		
TMW-2	06/17/2014	3.0-8.0	3.30	ND	ND	1.6	<5	<3
TMW-5	06/17/2014	2.5-7.5	2.86	ND	ND	<0.5	<5	<3
TMW-7	06/17/2014	1.3-6.3	2.30	ND	ND	<0.5	<5	<3
A-3				ND	ND	<0.5	<5	<3
TMW-9	06/17/2014	2.65-7.65	5.91	ND	ND	<0.5	<5	<3
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013								
Residential/Nonresidential (µg/L)								
Residential Drinking Water (Res DW)				Various	Various	5.0 (A)	100 (A)	4.0 (L)
Nonresidential Drinking Water (Nonres DW)				Various	Various	5.0 (A)	100 (A)	4.0 (L)
Groundwater Surface Water Interface (GSI)				Various	Various	4.6 (G,X)	11	30 (G,X)
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) *				Various	Various	NLV	NLV	NLV
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) *				Various	Various	NLV	NLV	NLV
Screening Levels (µg/L)								
Residential Groundwater Vapor Intrusion Screening Levels (GW _{Vt-res}) ³				Various	Various	NL	NL	NL
Nonresidential Groundwater Vapor Intrusion Screening Levels (GW _{Vt-nr}) ³				Various	Various	NL	NL	NL
Water Solubility				Various	Various	NA	NA	NA
Flammability and Explosivity Screening Level				Various	Various	ID	ID	ID

-  Applicable Criteria/RBSL Exceeded
- BOLD** Value Exceeds Applicable Criteria
- bgs Below Ground Surface (feet)
- ND Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
- ² Tier 1 GVII Criteria based on 3 meter (or greater) groundwater depth
- ³ (2013 Vapor Intrusion Guidance) Screening Levels based on depth to groundwater less than 1.5 meters and not in contact with building foundation
- NA Not Applicable
- NL Not Listed
- NLL Not Likely to Leach
- NLV Not Likely to Volatilize
- ID Insufficient Data